UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,752	08/25/2003	Robbert C. Van Der Linden	SVL920030054US1/2865P	3744

45728 7590 08/22/2006

SAWYER LAW GROUP LLP
2465 EAST BAYSHORE ROAD, SUITE 406
PALO ALTO, CA 94303

EXAMINER	
COLAN, GIOVANNA B	

ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,752	VAN DER LINDEN ET AL.	
	Examiner	Art Unit	
	Giovanna Colan	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-11,13-21 and 23-36* is/are pending in the application.

4a) Of the above claim(s) *2,12 and 22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-11,13-21 and 23-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the Amendment filed on 05/25/2006.

2. Claims 1, 4 – 8, 11, 14 – 18, 21, and 24 – 28 were amended. Claims 2, 12, and 22 were canceled. Claims 31 – 36 were added.

3. This action is made Final.

4. Claims 1, 3 – 11, 13 – 21, and 23 – 36 are pending in this application.

5. Applicant's arguments filed on 05/25/2006 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1, 3 – 11, 13 – 21, and 23 – 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding Claims 1, 11, and 21, the term "within" is not clearly defined by the claim language. The specification does not provide support for the limitation including one child pointer "within" at least one of the plurality of nodes. Examiner is unclear

about how a pointer, which is a link that indicates as to where to navigate and/or search, can contain a hint within itself, and not in the tree node. In addition, the specification, specifically paragraph [0055] and Fig. 8, does not provide the details as to how the hint is within the pointer and how the pointer is within the node.

Examiner asserts that all claims should be checked for clarification. Appropriate action is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claim 1 – 5, 9, 11 – 15, 19, 21 – 25, 29, and 31 – 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Igata (Igata hereinafter) (US Patent No. 6,853,992 B2, filed: November 30, 2000).

Regarding Claim 1 and 11, Igata discloses a computer readable medium containing a computer program for querying a structured document stored in its native

format in a database (Fig. 1, item 23, Col. 7, lines 4 – 10, Igata), wherein the structured document comprises a plurality of nodes that form a hierarchical node tree (Col. 4, lines 24 – 27, Igata), the computer program comprising instructions for:

a) providing at least one child pointer within at least one of the plurality of nodes in the hierarchical node tree, wherein the at least one child pointer points to a corresponding child node in the hierarchical node tree (Fig. 8B, Col. 10, lines 38 – 41 and 53 – 55, "POINTER to CHILDNODE" and hierarchical index, Igata);

b) storing a hint within the at least one child pointer (Fig. 12C, item 41, PART1, PART2, PART3, Col. 14, lines28 – 33, Igata[1]), the hint being related to the corresponding child node (Fig. 12B, item 41, PART1, Col. 14, lines 16 – 20, Igata), wherein the at least one child pointer further comprises a node slot number of the corresponding child node (Fig 2B, item: PART IDENTIFIER and CHILD LINK, Col. 7, lines 47 – 51, Igata); and

c) utilizing the hint to determine whether to navigate to the corresponding child node during query evaluation (Col. 21, lines 21 – 27, Igata).

Regarding Claim 3 and 13, Igata discloses a computer readable medium, wherein the hint is a portion of the corresponding child node's name (Fig. 12B, item 41, PART1, 2, 3, Col. 14, lines 16 – 20, Igata[2]).

---

[1] Examiner interprets the link in "PART ID" to PART 1, 2 as the hint.
[2] Wherein PART1 is a portion. PART2 and PART3 are different portions.

Regarding Claim 4 and 14, Igata discloses a computer readable medium, wherein utilizing instruction (c) further comprises:

c1) receiving a query (Col. 4, lines 30 – 31, Igata);

c2) navigating to a current node of the plurality of nodes in the hierarchical node tree associated with the structured document (Col. 7 and 10, lines 41 – 45 and 53 – 55; respectively, Igata[3]);

c3) checking a first hint stored in a first child pointer in the current node (Col. 9, lines 39 – 43, wherein the part-ID is used as a search key, Igata); and

c4) navigating to the corresponding child node based on the checking in step (c3) (Col. 9, lines 41 – 43, Igata[4]).

Regarding Claim 5 and 15, Igata discloses a computer readable medium, wherein checking instruction (c3) further comprises:

(c3i) comparing the first hint to the query (Col. 10, lines 45 – 48 and 53 – 55, Igata[5]).

Regarding Claim 9 and 19, Igata discloses a computer readable medium, wherein the structured document is written in Extensible Markup Language (Col. 10, lines 18 – 21, Igata).

---

[3] Wherein the hierarchical index corresponds to the hierarchical node tree claimed.
[4] Igata discloses a complete-match search through the document tree. Examiner interprets this search as navigation through the node tree.

Regarding Claim 21, Igata discloses a system for querying a structured document stored in its native format in a database (Fig. 1, item 23, Col. 7, lines 4 – 10, Igata), wherein the structured document comprises a plurality of nodes that form a hierarchical node tree (Col. 4, lines 24 – 27, Igata), the system comprising:

a computer system coupled to at least one data storage device (Fig. 1, item 23, Col. 7, lines 5 – 7, Igata);

a database management system in the computer system (Fig.1, item 22, Col. 7, lines 3 – 4, Igata); and

a storage mechanism in the database management system for providing at least one child pointer within in at least one of the plurality of nodes in the hierarchical node tree, wherein the at least one child pointer points to a corresponding child node in the hierarchical node tree (Fig. 8B, Col. 10, lines 38 – 41 and 53 – 55, "POINTER to CHILDNODE" and hierarchical index, Igata), and storing a hint within the at least one child pointer (Fig. 12C, item 41, PART1, PART2, PART3, Col. 14, lines 28 – 33, Igata[6]), the hint being related to the corresponding child node (Fig. 12B, item 41, PART1, Col. 14, lines 16 – 20, Igata), wherein the at least one child pointer further comprises a node slot number of the corresponding child node (Fig 2B, item: PART IDENTIFIER and CHILD LINK, Col. 7, lines 47 – 51, Igata);

wherein the database management system utilizes the hint to determine whether to navigate to the corresponding child node during query evaluation (Col. 21, lines 21 – 27, Igata).

---

[5] In order to match the structure of the query tree, the system need to complete the step of text-data

Regarding Claim 23, Igata discloses a system, wherein the hint is a portion of the corresponding child node's name (Fig. 12B, item 41, PART1, 2, 3, Col. 14, lines 16 – 20, Igata[7]).

Regarding Claim 24, Igata discloses a system, wherein the database management system is configured to receive a query (Col. 4, lines 30 – 31, Igata), to navigate to a current node of the plurality of nodes in the hierarchical node tree associated with the structured document (Col. 7 and 10, lines 41 – 45 and 53 – 55; respectively, Igata), to check a first hint stored in a first child pointer in the current node (Col. 9, lines 39 – 43, wherein the part-ID is used as a search key, Igata), and to navigate to the corresponding child node based on the checking (Col. 9, lines 41 – 43, Igata[8]).

Regarding Claim 25, Igata discloses a system, wherein the database management system is further configured to compare the first hint to the query (Col. 10, lines 45 – 48 and 53 – 55, Igata[9]).

---

matching condition, which requires a comparison between the two objects.
[6] Examiner interprets the link in "PART ID" to PART 1, 2 as the hint.
[7] Wherein PART1 is a portion. PART2 and PART3 are different portions.
[8] Igata discloses a complete-match search through the document tree. Examiner interprets this search as navigation through the node tree.
[9] In order to match the structure of the query tree, the system need to complete the step of text-data matching condition, which requires a comparison between the two objects.

Regarding Claim 29, Igata discloses a system, wherein the structured document is written in Extensible Markup Language (Col. 10, lines 18 – 21, Igata).

Regarding Claims 31, 32, and 33, Igata discloses a computer readable medium, wherein each of the plurality of nodes in the hierarchical node tree specifies a type of node (Col. 11 – 12, lines 24 – 28 and 7 – 9, a node type; respectively, Igata), one or more nodes in the hierarchical node tree being of a text-type (Col. 4, lines 24 – 31, text data of each document, Igata) and one or more other nodes in the hierarchical tree being of non-text type (Col. 4, lines 24 – 31, meta – part, Igata).

Regarding Claims 34, 35, and 36, Igata discloses a computer readable medium, wherein the at least one node in the hierarchical node tree further includes at least one other child pointer (Fig. 12C, item: node PART1, Col. 14, lines 28 – 33, Igata), the at least one other child pointer pointing to itself or to a in-lined character array (Fig. 12C, item: node PART1, PART2, PART3, and PART2, Col. 14, lines 28 – 33, Igata[10]).

[10] Wherein the pointer of the node including PART1 corresponds to the child pointer claimed; and the nodes including PART2, PART3, and PART2 correspond to the in-lined character array claimed.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 6, 10, 16, 20, 26, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igata (Igata hereinafter) (US Patent No. 6,853,992 B2, filed: November 30, 2000), and further in view of Manikutty et al. (Manikutty hereinafter) (US Patent No. 6,836,778 B2, filed: May 1, 2003).

Regarding Claims 6, and 16, Igata discloses all the limitations as disclosed above including computer readable medium, wherein navigating instruction (c4) further comprises: (c4i) navigating to the corresponding child node if the first hint matches the query (Col. 10, lines 53 – 55, Igata); and (c4ii) comparing the child node's name to the query to determine whether the child node satisfies the query (Col. 10, lines 45 – 48 and 53 – 55, match the structure of the query tree, Igata). However, Igata is silent with respect to a namespace. On the other hand, Manikutty discloses XML documents node trees including namespaces (Col. 14, lines 1 – 3, Manikutty). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Manikutty including namespaces to the system and method of Igata. Skilled artisan would have been motivated to do so, as suggested by Manikutty, in order to allow documents to contain elements from several distinct XML schema (Col. 1, lines 54 – 58, Manikutty).

Regarding Claims 10, and 20, the combination of Igata in view of Manikutty discloses a computer readable medium, wherein the query is an Xpath or an Xquery expression (Col 11, lines 15 – 19, Manikutty).

Regarding Claim 26, the combination of Igata in view of Manikutty discloses a system, wherein the database management system is further configured to navigate to the corresponding child node if the first hint matches the query (Col. 10, lines 53 – 55,

Igata), and to compare the child node's name and namespace to the query to determine whether the child node satisfies the query (Col. 14, lines 1 – 3, Manikutty).

Regarding Claim 30, the combination of Igata in view of Manikutty discloses a system, wherein the query is an Xpath or an Xquery expression (Col 11, lines 15 – 19, Manikutty).

13. Claims 7 – 8, 17 – 18, and 27 – 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igata (Igata hereinafter) (US Patent No. 6,853,992 B2, filed: November 30, 2000) in view of Bailey (Bailey hereinafter) (US Patent App. Pub. No. 2004/0243553 A1).

Regarding Claims 7, and 17, Igata discloses all the limitations as disclosed above including navigation instructions (Col. 7 and 10, lines 41 – 45 and 53 – 55; respectively, Igata). However, Igata does not explicitly disclose skipping child nodes. On the other hand, Bailey discloses a system and method for navigating (c4) further comprises: (c4i) skipping over the corresponding child node if the first hint does not match the query (Page 5, [0045], lines 20 – 22, Bailey). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Bailey to the system and method of Igata. Skilled artisan would have been motivated to do so, as suggested by Bailey, to provide a technique for access, utilizing a tree without traversing the tree down to its leaves (Page 1, [0003], lines 14 – 20, Bailey).

Regarding Claims 8, and 18, the combination of Igata in view of Bailey discloses a computer readable medium, wherein the utilizing instruction (c) further comprises:

(c5) determining whether another child pointer exists in the current node (Fig. 5, item 66, Page 5, [0046], lines 12 – 13, Bailey[11]);

(c6) checking another hint stored in the another child pointer if the another child pointer exists, and navigating to the corresponding child node based on the checking (Fig. 5, item 68, Page 5, [0046], lines 15 – 18, Bailey);

(c7) repeating steps (c5) and (c6) (Fig. 5, items 66 and 52, Page 5, [0046], lines 18 – 21, Bailey); and

(c8) navigating to a next node of the plurality of nodes in the hierarchical node tree if the another child pointer does not exist, and repeating steps (c3) through (c7), wherein the next node becomes the current node (Page 5, [0046], lines 11 – 14, b – tree, Bailey).

Regarding Claim 27, the combination of Igata in view of Bailey discloses a system, wherein the database management system is further configured to skip over the corresponding child node if the first hint does not match the query (Page 5, [0045], lines 20 – 22, Bailey).

[11] Examiner interprets determining if the current node is a leaf node (as taught in Bailey's disclosure), as a method for determining whether a child pointer exists.

Regarding Claim 28, the combination of Igata in view of Bailey discloses a system, wherein the database management system is further configured to determine whether another child pointer exists in the current node (Fig. 5, item 66, Page 5, [0046], lines 12 – 13, Bailey[12]), to check another hint stored in the another child pointer if the another child pointer exists (Fig. 5, item 68, Page 5, [0046], lines 15 – 18, Bailey), to navigate to the corresponding child node based on the checking (Fig. 5, item 68, Page 5, [0046], lines 15 – 18, Bailey), and to navigate to a next node of the plurality of nodes in the hierarchical node tree if the another child pointer does not exist (Page 5, [0046], lines 11 – 14, Bailey).

[12] Examiner interprets determining if the current node is a leaf node (as taught in Bailey's disclosure), as

Response to Arguments

1. Applicant argues that the prior art fails to disclose; "storing a hint within the at least one child pointer the hint being related to the corresponding child node, wherein the at least one child pointer further comprises a node slot number of the corresponding child node".

Examiner respectfully disagrees. Igata does disclose storing a hint within the at least one child pointer (Fig. 12C, item 41, PART1, PART2, PART3, Col. 14, lines 28 – 33, Igata), the hint being related to the corresponding child node (Fig. 12B, item 41, PART1, Col. 14, lines 16 – 20, Igata). Wherein the link in "PART ID" to PART 1, 2 corresponds to the hint claimed. The newly added limitation "within" was not defined in the specification. Therefore is has been rejected under 35 U.S.C. 112, first paragraph (See – 35 U.S.C. 112, first paragraph rejection discussed in this Office Action above). Examiner has interpreted the link in the link **in** "PART ID" to PART 1, and 2 as the hint "**within**" claimed.

In addition, the newly added limitation including "a child pointer further comprises a node slot number" was not previously presented in the original claim language. However, Igata does disclose at least one child pointer further comprises a node slot number of the corresponding child node (Fig 2B, item: PART IDENTIFIER and CHILD LINK, Col. 7, lines 47 – 51, Igata).

---

a method for determining whether a child pointer exists.

2. Applicant argues that the prior art fails to disclose; "each of the plurality of nodes in the hierarchical node tree specifies a type of node, one or more nodes in the hierarchical node tree being of a text-type and one or more other nodes in the hierarchical tree being of non-text type".

Examiner respectfully disagrees. The argument relates to newly added limitations that were not previously disclose by the original claim language. However, Igata does disclose the limitation where each of the plurality of nodes in the hierarchical node tree specifies a type of node (Col. 11 – 12, lines 24 – 28 and 7 – 9, a node type; respectively, Igata), one or more nodes in the hierarchical node tree being of a text-type (Col. 4, lines 24 – 31, text data of each document, Igata) and one or more other nodes in the hierarchical tree being of non-text type (Col. 4, lines 24 – 31, meta – part, Igata). Wherein the tree structure (Col. 4, lines 24 – 26, Igata) corresponds to the hierarchical node tree as claimed. To add, the tree structure of Igata includes both text nodes and non-text nodes (Col. 4, lines 26 – 29, in a tree structure in which a **"meta part"** ... ; a text index in which **a character string contained in text data** of each document **is registered**, Igata). Therefore, Igata does not teach away from the claimed invention.

3. Applicant argues that the prior art fails to disclose; "one node in the hierarchical node tree further includes at least one other child pointer, the at least one other child pointer pointing to itself or to a in-lined character array".

Examiner respectfully disagrees. The applied reference does disclose one node in the hierarchical node tree further includes at least one other child pointer (Fig. 12C, item: node PART1, Col. 14, lines 28 – 33, Igata), the at least one other child pointer pointing to itself or to a in-lined character array (Fig. 12C, item: node PART1, PART2, PART3, and PART2, Col. 14, lines 28 – 33,Igata). Wherein the pointer of the node including PART1 corresponds to the child pointer claimed; and the nodes including PART2, PART3, and PART2 correspond to the in-lined character array claimed.

4. Applicant argues that the prior art fails to disclose; "multiple child links, where at least one of the child links points to itself or an in-lined character array".

Examiner respectfully disagrees. The limitation "multiple child links" is not disclose by the claim language and specification of the claimed invention. However, the reference applied does disclose multiple child links (Fig. 12C, item: node PART1, Col. 14, lines 28 – 33, Igata), where at least one of the child links points to itself or an in-lined character array (See response to argument 3, and rejection of claims 34 – 36 discussed in this Office Action above

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Prior Art Made Of Record

1. Igata (US Patent No. 6,853,992 B2, filed: November 30, 2000) discloses a structured-document search apparatus and method, recording medium storing structured-document searching program, and method of creating indexes for searching structured documents.

2. Manikutty et al. (US Patent No. 6,836,778 B2, filed: May 1, 2003) discloses techniques for changing XML content in a relational database.

3. Bailey (US Patent App. Pub. No. 2004/0243553 A1) discloses positional access using a b-tree.

4. Non-Patent Literature: Masatoshi Yoshikawa et al., "Xrel: A Path-Based Approach to Storage and Retrieval of XML Documents Using Relation Databases," Japan, ACM 2001.

5. Non-Patent Literature: Lin Guo et al., "XRANK: Ranked Keyword Search over XML Documents," ACM, SIGMOD 2003, June 9 – 12, 2003, San Diego, CA.

6. Non-Patent Literature: V. Christophides et al., "Querying Structured Documents with Hypertext Links using OODBMS," France, ACM 1998.

7. Millett et al. (US Patent No. 6,584,458 B1) discloses a method and apparatuses for creating a full text index accomodating child words.

8. Moreland (US Patent No. 5,412,807) discloses a system and method for text searching using an n-ary search tree.

Points Of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna Colan whose telephone number is (571) 272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan
Examiner
Art Unit 2162
July 29, 2006

JOHN BREENE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

SV